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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,421	12/12/2001	Amarjit Tathgur	SHW100002000	5717
22891	7590	08/18/2005	EXAMINER	
DELIO & PETERSON 121 WHITNEY AVENUE NEW HAVEN, CT 06510			LEUNG, PHILIP H	
			ART UNIT	PAPER NUMBER
			3742	

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/015,421	TATHGUR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Philip H. Leung	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchida (JP 4-7124) (previously cited), in view of Reboux et al (US 4,224,494) (newly cited).

Tsuchida shows a method for heating a metal pipe 2 and a coating 12, 13 adhered on said pipe comprising applying on the coating with a susceptor member comprising a susceptor element (8), wherein said susceptor element and pipe are inductively heatable, and inductively energizing the susceptor element and pipe to cause the pipe and coating to be heated and the susceptor member together with coil heating device 3 are removed from the heated pipe (see Figures 1-6 and the English abstract). Therefore, Tsuchida shows every feature except that the susceptor element is not in direct contact with the coating. Reboux shows an induction heating device having a press with induction coil 1 and a susceptor 100 in removable contact with layer 3 to be brazed with the metal workpiece 2 (see Figures 1-4 and col. 3, line 50 – col. 4, line 54). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tsuchida to place the susceptor element in direct contact with the coating layer in order to press the coating onto the pipe for better heating result, in view of the teaching of Reboux. In regard to claim 2, Reboux also shows a heat insulation material 631 on the susceptor

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100 (see Figure 7). In regard to claims 14 and 15, the use of polypropylene coatings on plastic pipes is well known (see paragraph [002] of the specification).

3. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchida (JP 4-7124), in view of Reboux et al (US 4,224,494), as applied to claims 1, 2, 6, 14 and 15 above, and further in view of Buckley et al (US 5,919,387) (previously cited).

Tsuchida combined with Reboux shows every feature as claimed except for exact structure of the susceptor. Buckley shows that it is well known in the art of induction heating pipes to use a susceptor (50) to induce heating by the induction heater (see Figures 2-6 and col. 3, line 62 - col. 6, line 3). Buckley shows that the susceptor 50 is perforate in Figure 2 and is coupled with an insulated coating (see col. 4, lines 1-5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tsuchida combined with Reboux to use any well known susceptors including perforated or insulated susceptors to allow more efficient heating and better bonding effect, in view of the teaching of Buckley.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchida (JP 4-7124), in view of Reboux et al (US 4,224,494), as applied to claims 1, 2, 6, 14 and 15 above, and further in view of Shiozaki (US 5,504,308) (previously cited).

Tsuchida combined with Reboux shows every feature as claimed except for the susceptor being formed of a closed circuit. Shiozaki shows that it is well known in the art of inductively heating thermoplastic resin pipes to include susceptors which are induction heat generating layers (2, 22, 23, 24) to provide additional heat in response to the induction heaters E, for heating

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the desired areas of the pipe (see Figures 1-4 and col. 3, line 32 - col. 4, line 20). Shiozaki shows the use of both open circuit susceptors (Figures 2 and 3) and closed circuit susceptors (Figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tsuchida combined with Reboux to use any well known susceptors including open circuit or closed circuit susceptors to match the work characteristics for more efficient heating and better bonding effect, in view of the teaching of Shiozaki.

5. Applicant's arguments filed 6-8-2005 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

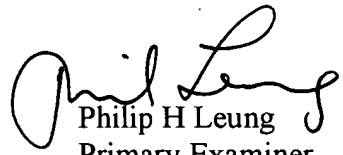
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (571) 272-4782. The examiner can normally be reached on flexible.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Philip H Leung  
Primary Examiner  
Art Unit 3742

P.Leung/pl  
8/17/2005